

REMARKS

Applicants hereby cancel Claims 1-4 without prejudice, and reserve the right to resubmit such claims if desired in a subsequent application. Further, Claims 5 and 15 are hereby amended, and in view of the following discussion, Applicants submit that all of Claims 5-22 are in condition for allowance.

As to the requirement for a replacement oath or declaration, this will follow in the near future. Should this response result in allowance, Applicants request issuance of a Notice of Allowance wherein the subsequent declaration may be submitted during the period for reply to the Notice of Allowability as permitted under MPEP §602.03 and specifically paragraph 6.46 set forth in this MPEP section.

With respect to the claim rejections, applicants hereby delete Claims 1-4 in the interest of expediting allowance of the remaining claims. In the event it is necessary to refile this application or file an RCE, Applicants reserve the right to resubmit such claims for continued prosecution.

As to the remaining claims, independent Claim 5 is hereby amended to further identify the shaft seal arrangement as comprising a mechanical seal wherein the claimed "passage fluid" is "supplied to said mechanical seal". This merely clarifies the claimed shaft seal arrangement and that the temperature data collector senses locations defined on the exposed surfaces adjacent the bearings and the passages of said seal arrangement with the sensing locations associated with the passages indicating a temperature of the passage fluid therein. This claim amendment is believed to merely clarify that the shaft seal arrangement is of a mechanical seal type with the claim being patentably distinguishable from the prior art based upon the claim elements already defined in this claim.

It is noted that Claim 5 is rejected based upon the Hays patent in combination with the Piety patent. Applicants respectfully request reconsideration of this rejection since this rejection does not teach the claimed invention and in

particular, does not teach the claimed invention with respect to monitoring the bearings as well as a shaft seal assembly and the temperature of the fluid in the passages of the shaft seal assembly.

With respect to Hays, Hays provides no indication of monitoring the conditions of a shaft seal assembly and in particular a mechanical seal or monitoring the temperature associated with the fluid in such seal assembly. In fact Hays teaches away from such arrangement since it only discloses in column 13, lines 19-25 that a seal leakage sensor 94 is provided. Thus, the system of Hays only discloses determining the operation of a mechanical seal by detecting whether the seal is leaking which is believed to be a sensor that detects fluid. This distinctly differs from Applicants claimed invention and Hays is not believed to disclose, teach or suggest monitoring the temperature of fluid passages of a shaft seal arrangement.

Further, the Piety patent is not believed to cure the deficiencies of Hays. This patent only generally references monitoring temperature levels and is not believed to provide any disclosure, teaching or suggestion of monitoring the surface temperatures associated with fluid passages in a mechanical seal. A key word search of the Piety patent did not disclose any references to the specific term "seal" and thus, it is believed that Piety does not provide any teaching or suggestion relative to a seal and thus does not cure the deficiencies of Hays discussed above.

Based upon the foregoing, Claims 5-14 are believed in condition for allowance.

As to independent Claim 15, this claim also specifically defines a shaft seal assembly and is amended to clarify that this shaft seal assembly is a mechanical seal. Further, the exterior surfaces that are monitored are associated with both the bearings and the shaft seal assembly, with Claim 15 being further amended to clarify that the surface temperatures being detected are associated with both the bearings and shaft seal

assembly. As indicated above, Hays does not disclose this arrangement. While Hays does disclose that a shaft seal assembly does exist, Hays also specifically discloses only using a seal leakage sensor to detect seal leakage occurring therein. Such seal leakage is believed to indicate a fluid flow of seal leaking from the seal. This distinctly differs from Applicants claimed arrangement which monitors temperatures directly associated with the seal and is believed to teach away from Applicants invention. Also as discussed above, Piety fails to cure these deficiencies. As such, all of claims 15-22 also are believed in condition for allowance.

In view of the foregoing, all pending claims 5-22 are believed in condition for allowance, and further and favorable consideration of this application is respectfully requested.

Respectfully submitted,


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